# Source Water Protection Strategy Update
# Preparedness Workgroup
## Meeting Minutes
## January 28, 2019 9:00am

**Present:**
Andrew Madison, NHDES
Pierce Rigrod, NHDES
Justin Kates, Nashua Emergency Management
Matt Chigas, Nashua Emergency Management
Bob Bishop, NHDES
Sara Siskavich, Nashua Regional Planning Commission
Ian Rohrbacher, City of Rochester

- Introductions
- Background and Purpose:
    - An explanation was given as to the purpose of the strategy update and the purpose of the workgroup.
    - The 2014 Elk River Disaster, and the oversights that led up to the disaster were reviewed and briefly discussed.
- What do we know:
    - Tier II facilities and AST's are mapped within Hydrologic Areas of Concern (HAC's), these maps are provided to water suppliers.
    - NHDES's AST program inspects less than 20% of all petroleum AST's annually. DWGB provides a list of "priority" AST inspections to the NHDES program managers, and to USEPA inspectors every year. AST's are prioritized by proximity to water sources, toxicity, age of tank, time since last inspection, tank construction material, and secondary containment.
    - No state regulations of chemical tanks (design, inspection,etc.) other than Env-Wq 401 if a regulated substance. Only regular compliance inspections exist for non-petroleum AST's if a BMP inspection program under 401 is in place.
    - 632 AST's exist within HAC's including 281 "high risk" tanks ranked by toxicity of substance, tank age, volume, type of secondary containment. Violation history was not considered.
    - Impossible to know the exact risk from mobile sources (Truck/rail tanks), but there are vulnerability assessments concerning hazardous materials via transportation networks. Nashua Emergency Management briefly explained their efforts to better understand the threats posed by mobile hazardous materials sources through the HazMat Commodity Flow Study. It was noted that Nashua keeps as much AST information available in an ArcMap-based format that can be viewed by first responders on a tablet.
        - **Follow up: Review the HazMat Commodity Flow Study, what can this study be useful for to target protection of sources? Obtain GIS data from study.**
    - There have been three spills within the last year from mobile sources into or very close to major sources of drinking water. Mobile spills, including accidents

involving tanker trucks or rail-cars, were noted as a particularly difficult problem to manage. **It was also noted that certain areas can be "hot-spots" for accidents including tight curves, intersections, and narrow bridges**. The risk of an accident at these areas can be increased during poor weather conditions, or when they are located within a low-salt area.

- It was noted that **a better understanding where high-risk areas are for mobile spills is needed**, so PWS' and emergency responders can be better prepared to respond quickly.
- The 2015/16 Tier II survey was briefly discussed as well as its **findings regarding inaccurate information contained within Tier II reports**. It was noted that a verification process for Tier II information would be important to confirm reported data. West Virginia enacted WVC 22-30-10 in the wake of the Elk River disaster, which requires facilities to provide information regarding substances and their quantities stored on site directly to downstream water suppliers.
- USGS time of travel study for 13 major PWS' was discussed and was noted to be a useful tool, however its lack of use requires greater outreach and perhaps an easier online format for expanding PWS operator use during an emergency.

- What NHDES SWP program does:
  - A brief overview of the Source Water Protection program was given.
- Where are the gaps:
  - Stormwater conveyance and, illicit discharges are difficult to track back due to the lack of municipal sewer/discharge mapping.
    - The group felt discharge points from urban areas would be important to know and there was discussion of the MS4 efforts in the area along the Merrimack River, in Manchester and other towns. Discussion of a discharge from the Verizon Center to the Merrimack River which resulted in NHDES response, and the need to "guess" at where the discharge was coming from during that response was discussed.
    - **Follow up**: Follow up with Sarah at NRPC regarding their progress to locate discharge points and contact an MS4 (Manchester?) to get an update as to mapping of illicit discharges and deadlines for doing so and likely availability of the data. Can she send us some data?
    - Discussion of NRPC who is in the process of compiling local stormwater infrastructure indicated obtaining the stormwater convenyance data was difficult and availability was not uniform.
  - Tier II data is not complete, locations of tanks are not accurate and can change in terms of content and volume quickly.
    - **Follow Up**: Invite HSEM (Sarah Osborne) to the next workgroup meeting. Hold a phone discussion before the meeting to outline the issues we hope to discuss.
  - Facilities are not required to provide Tier II information directly to PWS, WV requires this under 22-30-10.
    - Follow up: Discussion with HSEM concerning the possibility of such a Tier II facility requirement. We need to develop suggested language under NH RSA if we are going to require this, so the follow up is to determine

with HSEM perhaps, what statute would this fall under to govern this type of notification by Tier II facilities?

- Changes in hazardous substances kept on site, or quantities stored, do not need to be reported until the next reporting year (typically March/April of every year).
- Tier II data is not being reviewed for completeness or accuracy, no system is currently set up to audit this information.
    - Follow up: Does HSEM feel this is significant?
- **Communications**: PWS's may not find out about spills or releases in time to react, cross-jurisdictional entities may not be informing one another of spills.
- **Note**: See Bob's email. NH has signed up to have NRC notifications in real time when spills occur in ME, VT.
- **Follow Up**: Determine whether MA, VT, ME receive NRC notifications when a spill occurs in NH.
- PWSs need to know substance released, time of spill/release, quantity, toxicity, and discharge at the intake.
- Examples were given of spills or exercises near large public water systems or jurisdictions were not informed of spills.
- Operators are not likely to know how to evaluate a spill – is it toxic? Will treatment remove it?
- Internal and cross state agency written protocols exist and flow through 911 to the DWGB when an emergency involves a PWS. It's unclear whether local first responders are notifying downstream PWSs, including those across state or town boundaries.
    - **Follow up**: How can we know whether local responders are or are not notifying downstream PWSs? Should we send responders for all municipalities in the HAC maps showing the location of the intakes and large AST/Tier II facilities? And should this be a training issue targeted to specific town FDs/ERs? This is a discussion to have before the next meeting with an LEPC, Justin, or HSEM.
- **Planning**: Emergency planning requirements for PWS were briefly explained. It was noted that often plan information may be out of date, may be lost, or by not be used in the event of an emergency. It was discussed whether Emergency Plans should be required to be exercised by PWS on a regular basis. Not sure whether the plan content will be useful to PWS operators. The accuracy of phone trees within the emergency plans was also discussed.
- **Training**: A discussion was held on <u>what types of training</u> might be useful to PWS operators to make them better able to respond effectively during an emergency.
- Ideas discussed included increased NHDES support for table-top exercises and recommending National Incident Management System (NIMS) training for PWS operators.
    - **Follow up**: Is there such a NIMS program is specifically tailored to PWSs? If so, we need more detail if we are to recommend.

- **Decision Making**: It was suggested that decisions made with regard to water system treatment or distribution should be the sole authority of the plant operator (vs. Fire or other Dept.), and that this should be codified in any plan or rules.
- Making the USGS Time of Travel tool an online application is likely to make it easier for operators to use to calculate the leading edge, peak and following concentrations, allowing them to better access risk of contamination.
    - **Follow Up:** ORSANCO VOC monitoring, what is the reality of having such a monitoring program on the Merrimack River or other large rivers used as sources. Email to ORSANCO and phone call to obtain additional information.
- **Regulations**: It was agreed that LEPC's are not universally active across the state, creating gaps with respect to ER coordination and Tier II report review.
- Tier II substances at facilities often change in terms of the amount and substance that is used on site, perhaps weekly or daily. WV requires the facility to contact the PWS when there are changes involving hazardous substances.
    - Follow up: Contact WV state agency responsible for enforcing this provision. Is it working?
- What should the role be for local Fire Chief, or Local Emergency Planning Committees (LEPC) when facilities change substances used or quantities stored? Pass that onto the local PWS?
- Except for general "BMP" for groundwater protection under Env-Wq 401, NHDES regulations do not exist for inspections of non-petroleum (chemical) AST's. BMP inspections could be performed by local FD's during their regular safety inspections, however attempts to do this have not been productive. Other states like WV have required 3rd party engineering firms to conduct compliance assessments paid for by the owner.

- Meeting concluded at 12:20.

## Findings and Actions

***Finding****:* Illicit discharges present a potentially serious vulnerability to surface and groundwater sources, particularly in urban corridors with potential contaminants conveyed into source water via illicit discharges.
***Action****:* Work closely and support local MS4 programs to prioritize and control discharges to source water from stormwater conveyance systems.
***Follow up***: Discuss status of MS4 programs in key urban areas with local program managers to determine how to support or accelerate compliance with state and federal discharge requirements.
***Finding:*** First responders are not always aware of down-stream DW water sources that may be affected when responding to an emergency.
***Action:*** Distribute DWGB Spill Response maps showing flowpaths and sources to local fire departments and explore ArcGIS Online viewer (not available to many departments due to costs) as an option for providing maps in the field.
***Follow Up:*** Consult with FD's and local emergency managers to identify what information would be most useful to them, and in what format would be best.

***Finding:*** Some areas are at a higher risk for accidents involving mobile sources such as tanker trucks or rail cars. A better understanding of high-risk areas for mobile spills is needed.
***Action:*** Map spills involving mobile sources to identify areas where they are more likely to happen and provide this information to stakeholders (FD's, Towns, NHDOT) to they can better prepare for accidents, or investigate improvements to prevent them.
***Follow Up:*** Obtain Nashua's Hazard Materials Commodity Study and review as to whether this type of analysis would be useful to determining vulnerability of sources from mobile spills.

***Finding:*** Local first responder communications during emergencies which may impact sources, may not result in prompt notification of spill events/releases, particularly when a spill may involve notifying a downstream PWS, including those that are out-of-state.
***Action:*** Develop training objectives with HSEM or other partners and target the training to local emergency responders in critical source protection areas to focus on notification protocols for local first responders.[1]
***Follow Up:*** Review existing notification protocols and utilize them to develop a template, this could include NHDES' Dam Bureau's protocol.
***Follow Up:*** Develop a targeted training for responders in towns in HACs? (run this by the WG)

***Finding:*** Emergency response plans for CWSs are not required to be made available to first responders and community water systems are not required to exercise their plans.
***Action:*** PWS should be required to send a copy of their emergency plan to local first responders and for surface water sources, NHDES should support regular exercises of CWS emergency plans that include local and state responders. NHDES should work with US EPA to complete geographic response plans for surface sources to complement emergency plans.
***Follow Up:*** Investigate the viability of requiring community PWSs to forward their emergency plans to first responders and clarify the resources and other supports necessary to conduct exercises.

***Finding:*** Not all PWS operators, especially the operators of smaller systems, have the training necessary to respond effectively to an emergency situation.
***Action:*** NHDES should require all owners and/or water operator(s) identified as principals in emergency response plans to complete emergency response training (NIMS?) through a

[1] Note: The national response center does not automatically notify bordering states when a release occurs in one state and travels to another. NHDES has proactively registered for the NRC reports for releases that occur in the counties that border NH in ME and VT. MEDEP has also registered for NH NRC reports that occur in our neighboring counties. This registration occurred for us about 1 year ago and for ME this past summer. Beyond the NRC reports we would be relying on our state agency counterparts and the EPA for inland releases and the Coast Guard for coastal releases to notify us of a spill that may impact New Hampshire. (B. Bishop, 2/6/19) Can local responders directly get NRC?

state-approved training program. Operators should be encouraged to undertake NIMS training with training credits offered.
***Follow Up:*** Consult with Wade Pelham on whether credits can be offered for table-top training exercises and emergency management courses such as NIMS and the ICS series.

***Finding:*** Not all non-petroleum AST's are being inspected for compliance with BMP's.
***Action:*** BMP inspections to ensure compliance with Env-Wq 401, could be performed by local fire departments as a part of regular life-safety inspections.
***Follow Up:*** Investigate viability of real-time, in-situ, organics monitoring such as OSAMCO.